

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 January 2001 (04.01.2001)

PCT

(10) International Publication Number
WO 01/00668 A1

(51) International Patent Classification⁷: C07K 14/285,
1/34

(21) International Application Number: PCT/US00/17019

(22) International Filing Date: 20 June 2000 (20.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/141,067 25 June 1999 (25.06.1999) US

(71) Applicant (for all designated States except US): AMERICAN CYANAMID COMPANY [US/US]; Five Giralda Farms, Madison, NJ 07940 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LAKHOTIA, Sanjay [US/US]; 750 Bair Island Road, #301, Redwood City, CA 94063 (US). BIEHL, Michael, R. [US/US]; 1603 Crepe Myrtle Drive, Sanford, NC 27330 (US).

(74) Agents: GORDON, Alan, M.; American Home Products Corporation, Patent Law Dept. - 2B2, One Campus Drive, Parsippany, NJ 07054 et al. (US).

(81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXTRACTION OF INTEGRAL MEMBRANE PROTEINS

(57) Abstract: A process is described for extracting gram-negative integral membrane proteins from bacteria or bacterial host cells containing a recombinant vector by differential detergent tangential flow diafiltration. This process has several advantages over alternate processes. First, it combines the clarification and extraction processes into one unit operation. The product is extracted from the cells and it is separated from cell debris with only one continuous diafiltration process. Second, the membrane proteins are extracted in a semi-purified state, which simplifies the downstream processing steps. Third, this process is very scalable because the only requirement is that the surface area of the membranes be increased proportionally with the amount of cells.

WO 01/00668 A1